

REMARKS

Claims 11-17 and 31-36 are pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application.

It should be noted, initially, that the Applicants disagree with many of the assertions made in the Office Action (e.g., the bald and completely unsupported assertion in the rejection of Claim 15 that “the limitation as recited is the **only way** to determine if a node is a loop closure node or not outside of manual inspection by a person”). In the interests of expediting prosecution, minimizing the amount of material that the Examiner must read, and avoiding prosecution history estoppel, Applicants have not separately argued against many of these assertions despite Applicants’ disagreement with those assertions.

Specifically, where a dependent claim would be allowable at least due to the cited references failing to disclose a limitation of the independent claim on which the dependent claim depends, assertions made in the rejection of that dependent claim have not been argued against separately. The absence of arguments against every single assertion in the Office Action should not be construed as Applicants’ acquiescence in or agreement with those assertions.

OBJECTIONS TO THE CLAIMS

The Office Action objected to Claim 15 for lacking the word “wherein.” Claim 15 has been amended to recite the word “wherein.”

REJECTIONS UNDER 35 USC §112

Claims 11-17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, allegedly, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 has been amended to recite that the “plurality of adjacent nodes” is “within” the “sequence of nodes.” Thus, while the “sequence” includes the “plurality,” there may be nodes, such as the source node and destination node, which are within the “sequence” but not the “plurality.” Claim 11 also has been amended to recite that each node in the “plurality,” rather than the “sequence,” has at least two adjacent nodes. While each node in the “plurality” has at least two adjacent nodes, nodes that are in the “sequence,” but not the “plurality,” might not have at least two adjacent nodes.

Applicants respectfully submit that the amendments to Claim 11 cause Claims 11-17 to come within the mandate of 35 U.S.C. § 112, second paragraph.

REJECTIONS UNDER 35 USC §103

Claims 11-17 and 31-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable, allegedly, in view of U.S. Patent No. 6,256,295 (“Callon”) in view of U.S. Patent No. 5,881,243 (“Zaumen”). The rejections are traversed.

The Office Action admits that Callon does not disclose Claim 11’s feature, **“determining if the particular node is a loop closure node, and if the particular node is a loop closure node, then determining if one of more nodes in the sequence that are part of a loop path defined by the loop closure node are already designated as being part of the path closure set.”**

The Office Action alleges that this feature is taught or suggested by Zaumen. The cited portion of Zaumen says, “Three types of approaches exist in the prior art for providing a shortest path. . . . A third disadvantage [of the link-state approach] is that the shortest perceived path **may contain loops.** . . .”

The Office Action infers from this that it was known in the prior art how to find the shortest path that definitely contains a loop. However, it does not follow, from the fact that a shortest discovered path **may contain** a loop, that the shortest discovered path **must** contain a loop. The cited portion only discloses that a shortest discovered path might contain loops. However, the shortest path discovered using the link-state approach might **not**, and in many cases will not, contain loops. It cannot be inferred from the cited portion of Zaumen that any prior art approach was able to discover a path that necessarily contained a loop, or even that any prior art approach was capable of determining if any discovered path contained a loop. The link-state approach discovers paths without knowing or determining whether those paths contain loops.

Since Zaumen doesn’t even teach or suggest determining whether a path contains a loop, Zaumen certainly doesn’t teach or suggest “**determining if the particular node is a loop closure node,**” or “**determining if one of more nodes in the sequence that are part of a loop path defined by the loop closure node are already designated as being part of the path closure set**” as recited in Claim 11. There is **no defined loop path** in Zaumen. There is no determination of whether a particular node is **a loop closure node** in Zaumen.

Because the link-state approach disclosed in Zaumen suffers a disadvantage due to the fact that the paths discovered thereby might contain unknown loops, it can be inferred that the link-state approach was not capable of determining whether such paths contained loops; if the

link-state approach was capable of making such a determination, then the link-state approach would not have suffered from this disadvantage. Because the link-state approach apparently cannot determine whether a path contains a loop, it follows that the link-state approach did not involve the determination of whether a node was a loop closure node. Clearly, the link-state approach can't determine whether a particular node closes a loop (and therefore is a "loop closure node") if the link-state approach can't determine the presence of a loop in the first place.

Further, there is **absolutely nowhere** in Zaumen that any determination is made as to whether certain nodes (e.g., those that are part of a loop path) are already **designated** as being part of a set of nodes (e.g., the path closure set). Zaumen never makes this determination.

In fact, even if Zaumen did disclose a technique for discovering a path that necessarily contained a loop, it would not follow merely from this that Zaumen determines whether the nodes in the loop were already **designated** as being within a specified set, regardless of whether that set was a path closure set or even any other specified set.

The Office Action says that "one can traverse the nodes in that loop to get to the destination from the source node as one exits the loop at some point." Even if this is so, it has nothing to do with determining whether nodes in a loop have already been designated as being part of a specified set.

The Office Action also says that "the nodes in the loop . . . are nodes in a path closure set as they are a select set of nodes between a source node and a destination node." However, even if the nodes in the loop would be considered to qualify for inclusion within a path closure set according to the definition of a path closure set, it does not logically follow that any determination is made as to whether those nodes **already have been designated** as being part of the set.

For example, if a node “B” meets all of the criteria for qualifying for inclusion within a path closure set for a source node “A” and a destination node “D,” the mere satisfaction of those criteria does not mean that node “B” has been **designated** as being part of that set. **Designating** certain nodes to be a part of that set is one of the steps of the method of Claim 11, and is done so only conditionally. At a certain point in time before a determination is made, node “B” might be a node that would qualify for inclusion within the path closure set, but until that determination is made, node “B” is not **designated** as being part of that set. Again, Zaumen doesn’t ever make the determination.

Therefore, there are multiple features of Claim 11 that neither Callon nor Zaumen discloses, teaches, or suggests. As a result, Claim 11 is patentable over even the combination of Callon and Zaumen under 35 U.S.C. § 103(a). Additionally, Claims 12-17 are patentable over even the combination of Callon and Zaumen under 35 U.S.C. § 103(a) at least by virtue of their dependence from Claim 11.

All of the rejections of Claims 31-36 are premised entirely on the assumption, shown above to be erroneous, that Zaumen discloses the discovery of a path that necessarily contains a loop.

Each of Claims 31-36 comprises the language “adding the particular node to a path closure set . . . **if a determination is made that** the particular node is part of a looping sequence of nodes.” The Office Action admits that Callon does not disclose making such a determination, and the discussion above shows that Zaumen also does not disclose making such a determination. Again, even if the link-state approach discussed in Zaumen can discover paths that might possibly contain loops, Zaumen doesn’t ever say or imply that the link-state approach

determines whether there is a loop in such a path or whether any node in such a path is part of such a loop.

Therefore, there are features of Claims 31-36 that neither Callon nor Zaumen discloses, teaches, or suggests. As a result, Claims 31-36 are patentable over even the combination of Callon and Zaumen under 35 U.S.C. § 103(a).

CONCLUSION

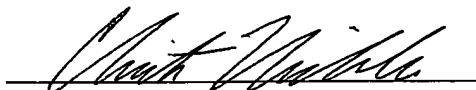
For the reasons set forth above, it is respectfully submitted that all of the pending claims are in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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on December 8, 2005 by 
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